

## CLAIMS

What is claimed is:

- 1 1. A personal protective device for repelling predators, comprising:  
2 a circuit board, comprising:  
3 (1) control circuitry; and  
4 (2) a sound generator;  
5 a piezoelectric speaker;  
6 a power supply in electrical communication with said circuit board to enable the supply  
7 of electrical energy for operation; and  
8 a switch for selectively supplying electrical energy to the circuit board;  
9 wherein the circuit board, piezoelectric speaker, power supply, and switch are encased in  
10 a waterproof container.
- 1 2. The personal protective device according to claim 1, the sound generator further  
2 comprising:  
3 a computer chip having a sound recorded thereon.
- 1 3. The personal protective device according to claim 2, wherein:  
2 the recorded sound comprises the sound of a pod of killer whales feeding.
- 1 4. The personal protective device according to claim 2, wherein:  
2 the recorded sound comprises a digitally synthesized sound of a pod of killer whales  
3 feeding.
- 1 5. The personal protective device according to claim 2, wherein:  
2 the recorded sound comprises a digitally synthesized sound recognized by animals that  
3 are predators of human beings as sounds of predators of such animals.
- 1 6. The personal protective device according to claim 2, wherein:

2 the recorded sound comprises sound of a marine animal selected from the group  
3 consisting of:  
4 bottle-nosed dolphins;  
5 sperm whales;  
6 humpback whales; and  
7 marine carnivores known to attack sharks.

1 7. The personal protective device according to claim 1, wherein:  
2 the control circuitry directs the sound generator to produce a sound when the circuit  
3 board is energized and directs the sound generator to continuously replay the sound as long as  
4 the circuit board remains energized.

1 8. The personal protective device according to claim 1, wherein:  
2 the power supply comprises a battery.

1 9. The personal protective device according to claim 1, the sound generator further  
2 comprising a plurality of recordings of sounds recognized by animals that are predators of human  
3 beings as sounds of predators of such animals, said device further comprising:  
4 a switch operatively connected to said circuit board to selectively enable a preferred  
5 sound.

1 10. The personal protective device according to claim 1, further comprising:  
2 means for wearing the waterproof container on a human being.

1 11. The personal protective device according to claim 9, wherein:  
2 the means for wearing the waterproof container on a human being comprises a wrist  
3 strap.

1 12. The personal protective device according to claim 1, further comprising:  
2 means for attaching the waterproof container to equipment selected from the group  
3 consisting of:

4 boats;  
5 surfboards;  
6 floatation devices;  
7 marine equipment;  
8 tents;  
9 backpacks;  
10 tools; and  
11 camping equipment.

1 13. The personal protective device according to claim 1, wherein:  
2 the piezoelectric speaker emits a sound sufficient to repel known predators.

1 14. The personal protective device according to claim 1, wherein:  
2 the piezoelectric speaker emits a sound between approximately 120 decibels and  
3 approximately 190 decibels.

1 15. The personal protective device according to claim 1, wherein:  
2 the sound produced by the piezoelectric speaker is transmitted through water for a  
3 distance of at least 30 meters.

1 16. The personal protective device according to claim 1, further comprising:  
2 a first pushbutton to turn the device on by placing the switch in an enabled orientation.

1 17. The personal protective device according to claim 16, further comprising:  
2 a second pushbutton to turn the device off by placing the switch in a disabled orientation.

1 18. A method of repelling predators of humans, the method comprising the steps of:  
2 a. donning a personal protective device comprising:  
3 a circuit board, said circuit board further comprising control circuitry and a sound  
4 generator;  
5 a piezoelectric speaker;

6 a power supply in electrical communication with said circuit board to enable the  
7 supply of electrical energy for operation; and

8 a switch for selectively supplying electrical energy to the circuit board;

9 b. traveling to an area where first animals that are predators of humans are present; and

10 c. causing said personal protective device to play a recording of sounds of second  
11 animals that are predators of said first animals at sufficient amplitude to repel said first animals  
12 away from said personal protective device.

1 19. The method of claim 18, wherein said recording is played at an amplitude of  
2 between approximately 120 decibels and approximately 190 decibels.

1 20. The method of claim 18, wherein said recording is played at an amplitude  
2 sufficient to transmit said sounds a distance of at least 30 meters.

1 21. A method of protecting humans from predatory animals, the method comprising  
2 the steps of:

3 a. providing a personal protective device comprising:

4 a circuit board, said circuit board further comprising control circuitry and a sound  
5 generator;

6 a piezoelectric speaker;

7 a power supply in electrical communication with said circuit board to enable the  
8 supply of electrical energy for operation; and

9 a switch for selectively supplying electrical energy to the circuit board; and

10 b. instructing a user of said personal protective device to cause said personal protective  
11 device to play a recording of sounds of first animals that are predators of second animals at  
12 sufficient amplitude to repel said second animals away from said personal protective device after  
13 said user has traveled to an area where said second animals are present, wherein said second  
14 animals are predators of humans.